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123-YW-E175

nForce 750i SLI Mainboard

User's Manual

User Guide

EVGA nForce 750i SLI Motherboard

Table of Contents

Before You Begin… vi
Parts NOT in the Kit vi
Intentions of the Kit vi
EVGA nForce 750i Motherboard 1
Motherboard Specifications 1
Motherboard Specifications continued 2
UnPacking and Parts Description 3
Equipment 4
Motherboard Internal Connectors and Back Panel Connectors 5
I/O Panel description 6
Safety Instructions 6
Preparing the Motherboard 6
Hardware Installation 7
Installing the CPU and Fan 8
Installing Memory DIMMs 9
Installing the Motherboard 10
Installing the I/O Shield 10
Securing the Motherboard into the Chassis 10
Connecting Cables and Setting Switches 11
Power Connections 12
24-pin ATX Power (PWR1) 12
8-pin ATX 12V Power (PWR2) 12
Connecting IDE Hard Disk Drives 13
Connecting Serial ATA Cables 14
Connecting Internal Headers 15
Front Panel Header 15

IEEE 1394a 16
USB Headers 16
Audio 17
COM 1 17
Fan Connections 18
Expansion Slots 19
PCI Slots 19
PCI Express x1 Slot 19
PCI Express x16 Slots 19
Onboard Buttons 20
Configuring the BIOS 21
Enter BIOS Setup 21
Main Menu 22
Standard CMOS Features Menu 22
Date and Time 23
IDE Channel and SATA Channel 23
Drive A 23
Halt On 23
Memory 23
Advanced BIOS Features 24
Removable Device Priority 24
Hard Disk Boot Priority 25
Quick Power On Self Test 25
First/Second/Third Boot Device 25
Boot Other Device 25
Boot Up NumLock Status 25
Security Option 25
APIC Mode 25
MPS Version Control For OS 26
Full Screen LOGO Show 26

Advanced Chipset Features 26
Spread Spectrum 26
System BIOS Cacheable 26
Integrated Peripherals Menu 27
IDE Function Setup 27
RAID Config 28
USB Config 28
MAC Config 28
HD Audio 29
IEEE1394 controller 29
IDE HDD Block Mode 29
Onboard FDC Controller 29
Onboard Serial Port 1 29
Power Management Setup Menu 30
ACPI Function 30
ACPI Suspend Type 30
Power Management 30
HDD Power Down 30
Soft-Off by PBNT 30
WOL(PME#) From Soft-Off 31
Power On by Alarm 31
HPET Function 31
POWER ON Function 31
PWRON After PWR-Fail 32

PnP/PCI Configuration Menu 32
Init Display First 32
Reset Configuration Data 32
Resources Controlled By 33
IRQ Resources 33
PCI/VGA Palette Snoop 33
Maximum Payload Size 33

PC Health Status 34
Dynamic Fan Control 34
Frequency/Voltage Control 35
CPU Clock Ratio 35
LDT Frequency 35
System Clocks 35
FSB & Memory Config 36
FSB Memory Clock Mode 36
Memory Timing Settings 37
System Voltages 38
CPU Core 38
CPU FSB 38
System Monitor Menu .....
Installing Drivers and Software .....
Driver Installation .....
Appendix A. POST Codes.....

Before You Begin…

Parts NOT in the Kit

This kit contains all the hardware necessary to install and connect your new EVGA nForce® 750i SLI motherboard. However, it does not contain the following items that must be purchased separately to make the motherboard functional.

- **Intel microprocessor:**
  Intel Core 2 Extreme, Intel Core 2 Quad, Intel Core 2 Duo Pentium EE, Pentium D, Pentium
- **Cooling fan for the microprocessor**
- **System memory support:**
  Supports dual channel DDR2 533/667/800, Memory.
  Supports up to 8 GBs DDR2 memory.
- **Graphics Card**
  This motherboard supports 2-way SLI with two x16 PCI Express slots.
- **Power Supply**
  The power supply requirement is dependent upon the power and the number of the GPUs you install. If you are going to SLI two graphics cards, you are going to require more power. As a rule, for one GPU you need a minimum of a 350 W power supply. If you have two GPUs in an SLI configuration, you will need a minimum of a 500 W power supply. To calculate the power you are going to require for your specific configuration, go to www.slizone.com.

  These instructions tell you how to install each of the parts listed so you can have a functioning motherboard. As you go through the installation instructions, we are assuming you have purchased the necessary parts.

Intentions of the Kit

This kit provides you with the motherboard and all connecting cables necessary to install the motherboard into a PC case. If you are ***building*** a PC, you will use most of the cables provided in the kit. If however, you are replacing a motherboard, you will not need many of the cables.

When ***replacing*** a motherboard in a PC case, you will need to reinstall an operating system even though the current drives have an operating system.

EVGA nForce 750i Motherboard

Thank you for buying the EVGA NFORCE 750i SLI Motherboard. This motherboard offers the tools and performance PC users' demand. When combined with two SLI-Ready NVIDIA GeForce graphics cards, you get innovative NVIDIA SLI Technology for enhanced system performance.

Motherboard Specifications

- **Size**
  ATX form factor of 245mm x 305mm
- **Microprocessor support**
  Intel Core 2 Extreme, Intel Core 2 Quad, Intel Core 2 Duo, Pentium EE, Pentium D, Pentium
- **Operating systems:**
  Supports Windows XP 32bit/64bit and Windows Vista 32bit/64bit
- **Contains NVIDIA nForce 750i SLI MCP and SPP**
- **System Memory support**
  - Supports dual channel JEDEC DDR2-800 memory.
  - Supports up to 8 GBs of DDR2 memory.
- **Eight USB 2.0 Ports**
  - Supports hot plug
  - Eight USB 2.0 ports (six rear panel ports, two onboard USB headers)
  - Supports wake-up from S1 and S3 mode
  - Supports USB 2.0 protocol up to 480 Mbps transmission rate
- **Onboard Serial ATA II**
  - 300MBps data transfer rate
  - Four Serial ATA II connectors
  - NVIDIA MediaShield RAID with support for RAID 0, RAID 1, RAID 0+1, RAID 5, and JBOD
  - Supports hot plug and NCQ (Native Command Queuing)
- **Onboard LAN**
  - LAN interface built-in onboard
  - Supports 10/100/1000 Mbit/sec Ethernet
- **Onboard 1394**
  - Support hot plug
  - Two 1394a ports (one rear panel port, one onboard header) with rate of transmission at 400 Mbps

- **Onboard Audio**
  - Azalia High-Definition audio
  - Supports 8-channel audio
  - Supports S/PDIF output
  - Supports Jack-Sensing function
- **Green Function**
  - Supports ACPI (Advanced Configuration and Power Interface)
  - Supports S0 (normal), S1 (power on suspend), S3 (suspend to RAM), S4 (Suspend to disk - depends on OS), and S5 (soft - off)
- **Expansion Slots**
  - Three PCI slots
  - One PCI Express x1 slot
  - Two PCI Express x16 Graphics slot compliant with PCI Express 2.0

Unpacking and Parts Descriptions

Unpacking

The NVIDIA nForce 750i SLI motherboard comes with all the necessary cables for adding a motherboard to a new chassis. If you are replacing a motherboard, you may not need many of these cables.

Be sure to inspect each piece of equipment shipped in the packing box. If anything is missing or damaged, contact your reseller.

All parts shipped in this kit are RoHS-compliant (lead-free) parts.

Equipment

The following equipment is included in the NVIDIA nForce 750i SLI motherboard box.

	NVIDIA nForce 750i SLI Motherboard This PCI Express motherboard contains the NVIDIA nForce 750i SLI SPP and MCP and is SLI-ready.
	I/O Shield Installs in the chassis to block radio frequency transmissions, protect internet components from dust and foreign objects and aids in proper airflow within the chassis.
	Floppy Cable Used to attach a floppy drive to the motherboard.

	2-Port SATA Power Cable (Qty Three)
	1394 Cable Provides two additional 1394 ports to either the front or back panels of the chassis.
	USB 2.0 4-Port Cable Provides four additional USB ports to either the front or back panels of the chassis.
	SATA Signal Cable (Qty Four) Used to support the Serial ATA protocol and each one connects a single drive to the motherboard
	Comm2 Bracket Cable
	IDE-ATA 133 HDD Cable
	Driver Installation CD
	SLI Bridge 2-Way

Motherboard Internal Connectors and Back Panel Connectors

The EVGA nForce 750i SLI motherboard with the NVIDIA nForce 750i SLI SPP and MCP processors is a PCI Express, SLI-ready motherboard. Figure 1 shows the motherboard layout and Figures 2 shows the back panel connectors.

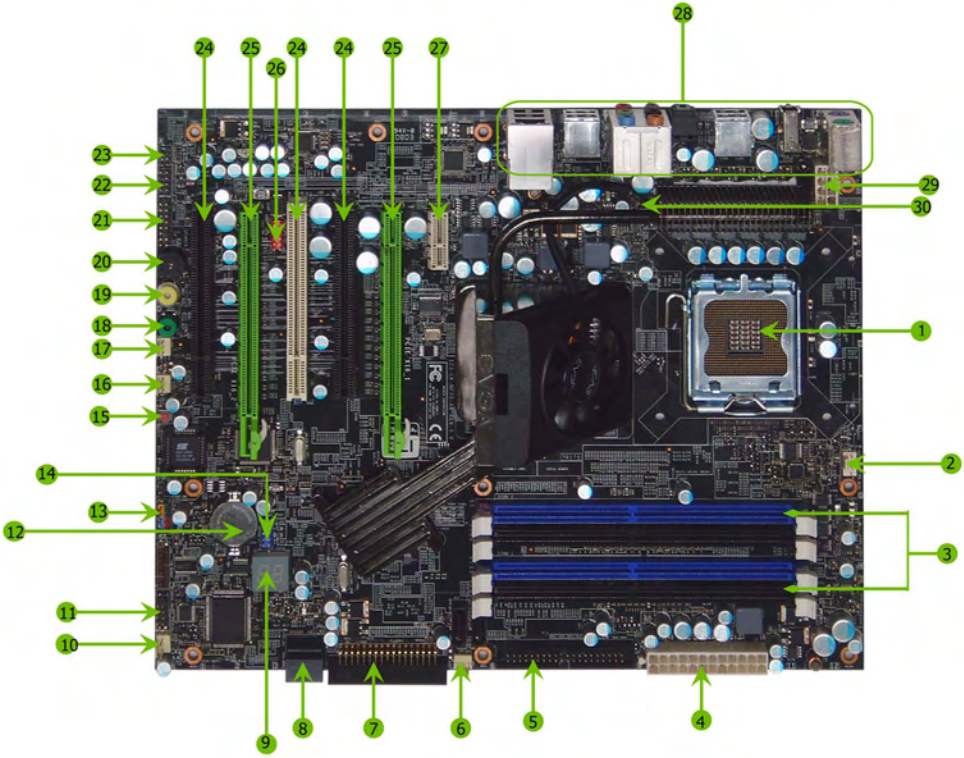


Figure 1. EVGA nForce 750i SLI Motherboard Layout

1. CPU 775 Socket	11. Serial connector	21. Azalia HD Audio Header
2. CPU fan connector	12. Battery	22. FP Audio connector
3. DDR2 DIMM slots 0 - 3	13. Front panel connector	23. SPDIF connector
4. 24-pin ATX power connector	14. USB header	24. PCI slots
5. IDE connector	15. Reset CMOS button	25. PCI Express x16 slots
6. Chassis fan2 connector	16. Auxiliary fan connector	26.1394a connector
7. FDD connector	17. System fan connector	27. PCI Express x1 slot
8. Serial-ATA (SATA) connectors	18. Power button	28. Backpanel connectors (Figure 2)
9. Post port	19. Reset button	29. 8-pin ATX_12V power connector
10. Chassis fan connector	20. Speaker	30. Chipset fan connector

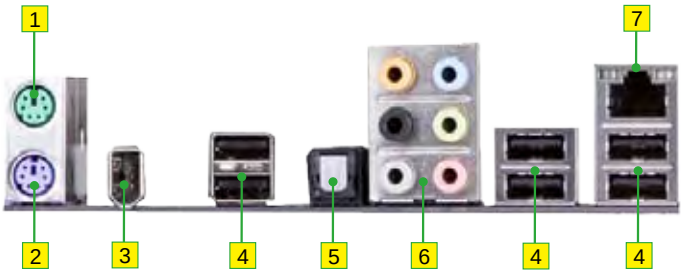


Figure 2. EVGA nForce 750i SLI Backpanel connectors

1. PS/2 Mouse Port
2. PS/2 Keyboard Port
3. 1394a (Firewire) Port
4. USB 2.0 ports (Six)
5. SPDIF output
6.

Audio Port	2-Channel	4-Channel	6-Channel/8-Channel
Blue	Line-In	Line-In	Line-In
Green	Line-Out	Front Speaker Out	Front Speaker Out
Pink	Mic In	Mic In	Mic In
Orange			Center/Subwoofer
Black		Rear Speaker Out	Rear Speaker Out
Grey			

7. Lan Port with LEDs to indicate status.
   - Yellow/Light Up/Blink = 10 Mbps/Link/Activity
   - Yellow and Green/Light Up/Blink = 100 Mbps/link/Activity
   - Green/Light Up/Blink = 1000 Mbps/Link/Activity

Hardware Installation

This section will guide you through the installation of the motherboard.
The topics covered in this section are:

- **Preparing the motherboard**
  - Installing the CPU
  - Installing the CPU fan
  - Installing the memory
- **Installing the motherboard**
- **Connecting cables and setting switches**

Safety Instructions

To reduce the risk of fire, electric shock, and injury, always follows basic safety precautions. Remember to remove power from your computer by disconnecting the AC main source before removing or installing any equipment from/to the computer chassis.

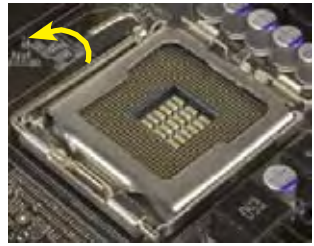
Preparing the Motherboard

The motherboard shipped in the box does not contain a CPU or memory. You need to purchase these components to complete this installation.

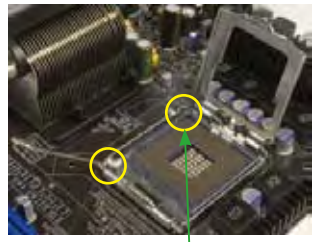
Installing the CPU

Be very careful when handling the CPU. Make sure not to bend or break any pins on the back. Hold the processor only by the edges and do not touch the bottom of the processor.

Use the following procedure to install the CPU onto the motherboard.



1. Unhook the socket lever by pushing down and away from the socket.
2. Lift the load plate. There is a protective socket cover on the load plate to protect the socket when there is no CPU installed.
3. Remove the protective socket cover from the load plate.
4. Remove the processor from its protective cover, making sure you hold it only by the edges.
   It is a good idea to save the cover so that whenever you remove the CPU, you have a safe place to store it.



Align notches with notches on the CPU

5. Align the notches in the processor with the notches on the socket.
6. Lower the processor straight down into the socket with out tilting or sliding it into the socket.

   Note: Make sure the CPU is fully seated and level in the socket.

7. Close the load plate over the CPU and press down while you close and engage the socket lever.

Installing the CPU Fan

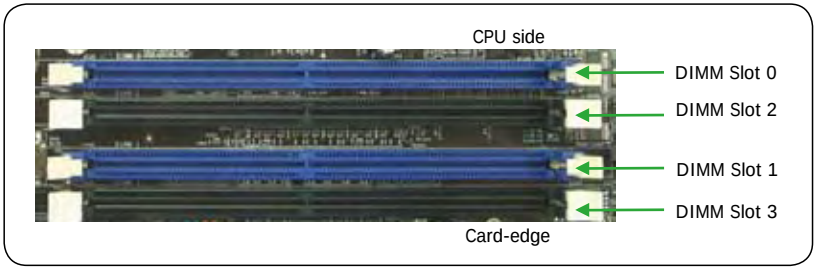
There are many different fan types that can be used with this motherboard. Follow the instruction that came with you fan assembly. Be sure that the fan orientation is correct for your chassis type and your fan assembly.

Installing Memory DIMMs

Your new motherboard has four 1.8V 240-pin slots for DDR2 memory. These slots support 256 MB, 512 MB, 1 GB, and 2 GB DDR2 memory modules. They also support dual channel DDR2 memory technology up to 10.7GB/s. There must be at least one memory bank populated to ensure normal operation. Use the following recommendations for installing memory. (See Figure 1 on page 4 for the location of the memory slots.)

- One DIMM: Install into slot 0. You can install the DIMM into any slot, however, slot 0 is preferred.
- Two DIMMs: Install into either slots 0 and 1 or 2 and 3. The idea is to not have the DIMMs in adjacent slots.
- Four DIMMS: Install into slots 0, 1, 2, and 3.

Use the following procedure to install memory DIMMs. Note that there is only one gap near the center of the DIMM slot. This slot matches the slot on the memory DIMM to ensure the component is installed properly.



1. Unlock a DIMM slot by pressing the module clips outward.
2. Align the memory module to the DIMM slot, and insert the module vertically into the DIMM slot. The plastic clips at both sides of the DIMM slot automatically lock the DIMM into the connector.

Installing the Motherboard

The sequence of installing the motherboard into the chassis depends on the chassis you are using and if you are replacing an existing motherboard or working with an empty chassis. Determine if it would be easier to make all the connections prior to this step or to secure the motherboard and then make all the connections. It is normally easier to secure the motherboard first.

Use the following procedure to install the I/O shield and secure the motherboard into the chassis.

Note: Be sure that the CPU fan assembly has enough clearance for the chassis covers to lock into place and for the expansion cards. Also make sure the CPU Fan assembly is aligned with the vents on the covers.

Installing the I/O Shield

The motherboard kit comes with an I/O shield that is used to block radio frequency transmissions, protects internal components from dust and foreign objects, and promotes correct airflow within the chassis.

Before installing the motherboard, install the I/O shield from the inside of the chassis. Press the I/O shield into place and make sure it fits securely. If the I/O shield does not fit into the chassis, you would need to obtain the proper size from the chassis supplier.

Securing the Motherboard into the Chassis

Most computer chassis have a base with mounting studs or spacers to allow the mother board to be secured to the chassis and help to prevent short circuits. If there are studs that do not align with a mounting hole on the motherboard, it is recommended that you remove that stud to prevent the possibility of a short circuit. In most cases, it is recommended to secure the motherboard using a minimum of nine (9) spacers.

1. Carefully place the motherboard onto the studs/spacers located inside the chassis.
2. Align the mounting holes with the studs/spacers.
3. Align the connectors to the I/O shield.
4. Ensure that the fan assembly is aligned with the chassis vents according to the fan assembly instruction.
5. Secure the motherboard with a minimum of eight-to-ten screws.

Connecting Cables and Setting Switches

This section takes you through all the connections and switch settings necessary on the motherboard. This will include:

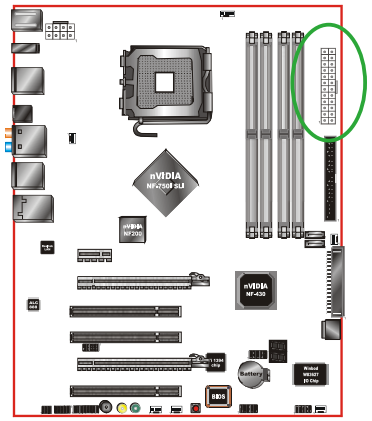
- **Power Connections**
  - 24-pin ATX power
  - 8-pin ATX 12V power
- **Internal Headers**
  - Front panel
  - IEEE 1394a
  - USB headers
  - Audio
  - Speaker
  - COM
- **FDD**
- **IDE**
- **Serial ATA II**
- **Chassis Fans**
- **Rear panel USB 2.0 Adapter**
- **Expansion slots**

See Figure 1 on page 4 to locate the connectors referenced in the following procedure.

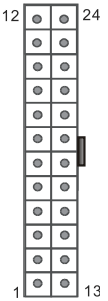
Power Connections

24-pin ATX Power

PWR1 is the main power supply connector located along the edge of the board next to the DIMM slots. Make sure that the power supply cable and pins are properly aligned with the connector on the motherboard. Firmly plug the power supply cable into the connector and make sure it is secure.

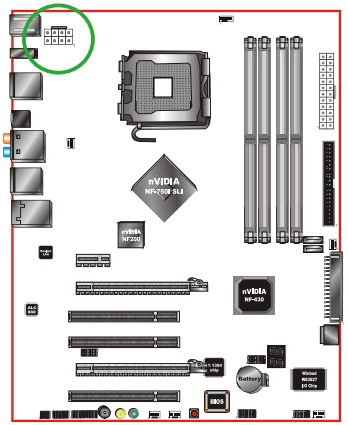


❖ Pin Assignments

Connector	Pin	Signal	Pin	Signal
	1	+3.3V	13	+3.3V
	2	+3.3V	14	-12V
	3	GND	15	GND
	4	+5V	16	PS_ON
	5	GND	17	GND
	6	+5V	18	GND
	7	GND	19	GND
	8	PWROK	20	RSVD
	9	+5V_AUX	21	+5V
	10	+12V	22	+5V
	11	+12V	23	+5V
	12	+3.3V	24	GND

8-pin ATX 12V Power

The 8-pin ATX 12V power connection, is used to provide power to the CPU. Align the pins to the connector and press firmly until seated.



❖ Pin Assignments

Connector	Pin	Signal	Pin	Signal
	1	GND	5	+12V
	2	GND	6	+12V
	3	GND	7	+12V
	4	GND	8	+12V

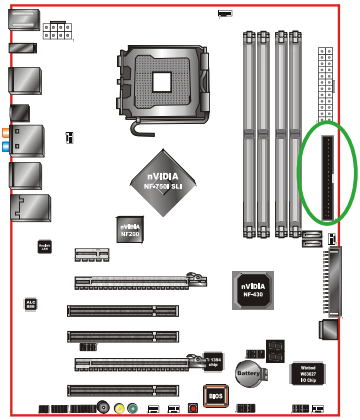
Connecting IDE Hard Disk Drives

The IDE connector supports Ultra ATA 133/100/66 IDE hard disk drives.

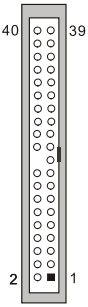
1. Connect the blue connector (the cable end with a single connector) to the motherboard.
2. Connect the black connector (the cable with the two closely spaced black and gray connectors) to the Ultra ATA master device.
3. Connect the gray connector to a slave device.

If you install two hard disk drives, you must configure the second drive as a slave device by setting its jumper accordingly. Refer to the hard disk documentation for the jumper settings.

Note: If an ATA-66/100 disk drive and a disk drive using any other IDE transfer protocol are attached to the same cable, the maximum transfer rate between the drives may be reduced to that of the slowest drive.



❖ Pin Assignments

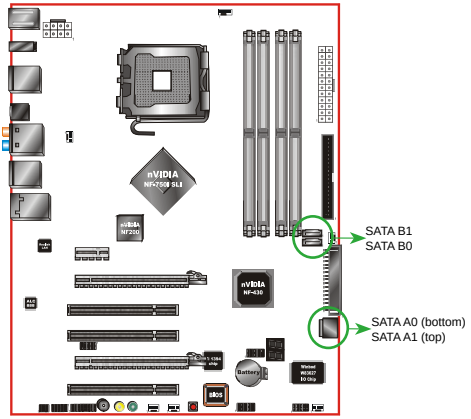


Connector	Pin	Signal	Pin	Signal
	1	Reset IDE	2	GND
	3	Host Data 7	4	Host Data 8
	5	Host Data 6	6	Host Data 9
	7	Host Data 5	8	Host Data 10
	9	Host Data 4	10	Host Data 11
	11	Host Data 3	12	Host Data 12
	13	Host Data 2	14	Host Data 13
	15	Host Data 1	16	Host Data 14
	17	Host Data 0	18	Host Data 15
	19	GND	20	—-
	21	DRQ 1	22	GND
	23	Host IOW	24	GND
	25	Host IOR	26	GND
	27	IOCHRDY	28	Host ALE
	29	DACK 1	30	Ground
	31	IRQ 15	32	NC
	33	Address 1	34	Ground
	35	Address 0	36	Address 2
	37	Chip Select 0	38	Chip Select 1
	39	Activity	40	GND

Connecting Serial ATA Cables

The Serial ATA II connector is used to connect the Serial ATA II device to the motherboard. These connectors support the thin Serial ATA II cables for primary storage devices. The current Serial ATA II interface allows up to 300MB/s data transfer rate.

There are four serial ATA connectors on the motherboard that support RAID 0,RAID 1, RAID 5, RAID 0+1 and JBOD configurations.

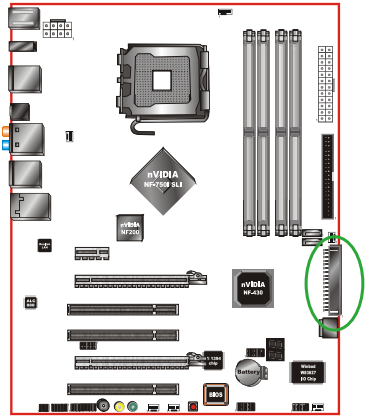


❖ Pin Assignments

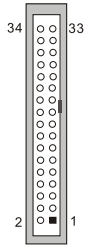
Connector	Pin	Signal
	1	GND
	2	TX+
	3	TX-
	4	GND
	5	RX+
	6	RX-
	7	GND

Connecting Floppy Disk Drive

The motherboard supports a standard 360K, 720K, 1.2M, 1.44m, and a 2.88M floppy disk drive (FDD).



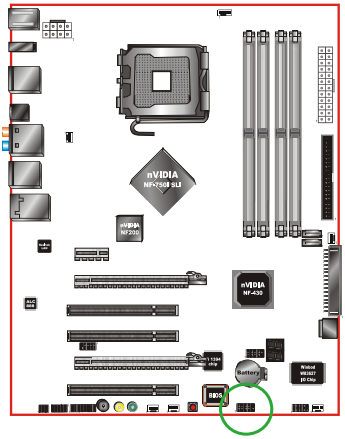
❖ Pin Assignments

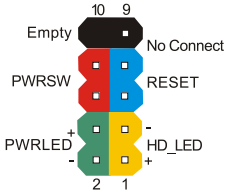
Connector	Pin	Signal	Pin	Signal
	1	GND	2	Drive Density Election
	3	GND	4	NC
	5	GND	6	DSI
	7	GND	8	Index
	9	GND	10	Motor Enable 0
	11	GND	12	DSB
	13	GND	14	Drive Select 0
	15	GND	16	Motor Enable 1
	17	GND	18	Direction
	19	GND	20	Step
	21	GND	22	Write Data
	23	GND	24	Write Gate
	25	GND	26	Track 0
	27	GND	28	Write Protect
	29	NC	30	Read Data
	31	GND	32	Side 1 Select
	33	NC	34	Diskette Change

Connecting Internal Headers

Front Panel Header

The front panel header on this motherboard is one connector used to connect the following four cables. (see Table 2 for pin definitions):





❖ Pin Assignments

Connector	Pin	Signal
HD_LED	1	HD_PWR
	3	HD ACT*
PWRLED	2	PWR LED
	4	STBY LED
RESET	5	GND
	7	RST BTN
PWRSW	6	PWR BTN
	8	GND
No Connect	9	+5V
Empty	10	Empty

PWRLED

Attach the front panel power LED cable to these two pins of the connector.

The Power LED indicates the system's status. When the system is in S0 status, the LED is on. When the system is in S4, S5 status, the LED is off. When the system is in S1, S3 status, the LED is blink.

Note: Some chassis do not have all four cables. Be sure to match the name on the connectors to the corresponding pins.

PWRSW

Attach the power button cable from the case to these two pins. Pressing the power button on the front panel turns the system on and off rather than using the power supply button.

HD_LED

Attach the hard disk drive indicator LED cable to these two pins. The HDD indicator LED indicates the activity status of the hard disks.

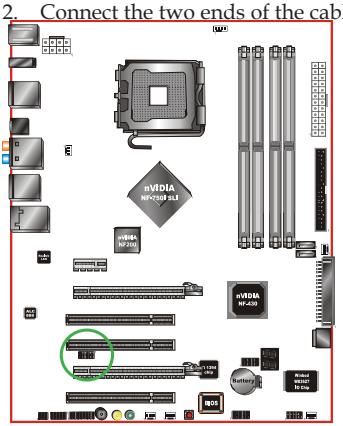
RESET

Attach the Reset switch cable from the front panel of the case to these two pins. The system restarts when the **RESET** switch is pressed.

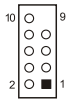
IEEE 1394a

The IEEE 1394 expansion cable bracket is provided in the box but if you do not require the additional external connections, you do not need to install it.

1. Secure the bracket to either the front or rear panel of your chassis (not all chassis are equipped with the front panel option).
2. Connect the two ends of the cables to the IEEE 1394 connectors on the motherboard.



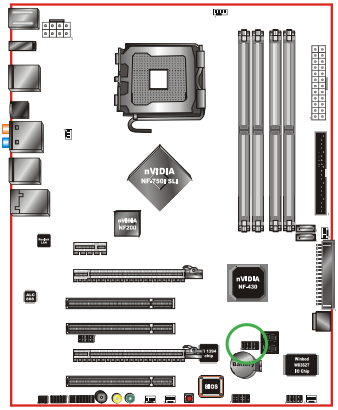
❖ Pin Assignments

Connector	Pin	Signal	Pin	Signal
	1	TPA+	2	TPA-
	3	GND	4	GND
	5	TPB+	6	TPB-
	7	+12V	8	+12V
	9	Empty	10	GND

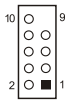
USB Headers

This motherboard contains six (6) USB 2.0 ports that are exposed on the rear panel of the chassis (Figure 2). The motherboard also contains one 10-pin internal header connectors onboard that can be used to connect an optional external bracket containing four (2) more USB 2.0 ports.

1. Secure the bracket to either the front or rear panel of your chassis (not all chassis are equipped with the front panel option).
2. Connect the two ends of the cables to the USB 2.0 headers on the motherboard.

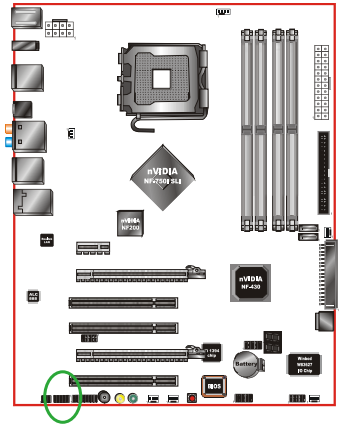


❖ Pin Assignments

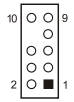
Connector	Pin	Signal	Pin	Signal
	1	5V_DUAL	2	5V_DUAL
	3	Data-	4	Data-
	5	Data+	6	Data+
	7	GND	8	GND
	9	Empty	10	No Connect

Audio

The audio connector supports HD audio standard and provides two kinds of audio output choices: the Front Audio, the Rear Audio. The front Audio supports re-tasking function.

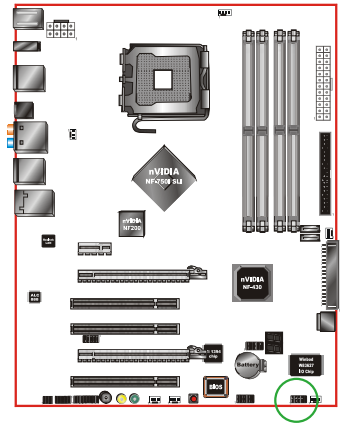


❖ Pin Assignments

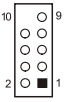
Connector	Pin	Signal	Pin	Signal
	1	PORT1_L	2	AUD_GND
	3	PORT1_R	4	PRECENCE_J
	5	PORT2_R	6	SENSE1_RETURN
	7	SENSE_SEND	8	Empty
	9	PORT2_L	10	SENSE2_RETURN

COM1

The motherboard kit provides an additional serial COM header for your machine. Connect one side of a switching cable to the header and then attach the serial COM device to the other side of the cable.

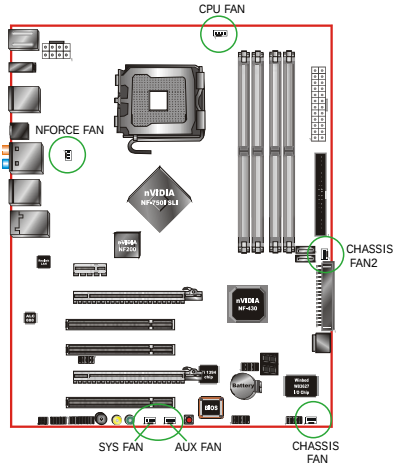


❖ Pin Assignments

Connector	Pin	Signal	Pin	Signal
	1	DCD (Data Carrier Detect)	2	DSR (Data Set Ready)
	3	RXD (Receive Data)	4	RTS (Request to Send)
	5	TXD (Transmit Data)	6	CTS (Clear to Send)
	7	DTR (Data Terminal Ready)	8	RI (Ring Indicator)
	9	GND	10	No Connect

Fan Connections

There are six fan connections on the motherboard. The fan speed can be detected and viewed in the **PC Health Status** section of the CMOS Setup. The fans are automatically turned off after the system enters S3, S4 and S5 mode.



CPU FAN:

Connect the CPU fan to this connrctor.

The CPU fan cable can be either a 3-pin or a 4-pin connector. Connect a 3-pin connector to pins 1, 2, and 3 on the motherboard connector.

NFORCE FAN:

Install the fan over the nForce 750i SLI SPP to draw heat from the MCP. The fans plug into a 3-pin connector.

Others FAN:

There are four more fan connectors on the motherboard. For this installation, these may not be used.

❖ Pin Assignments

Connector	Pin	Signal
	1	CONTROL
	2	SENSE
	3	+12V
	4	GND

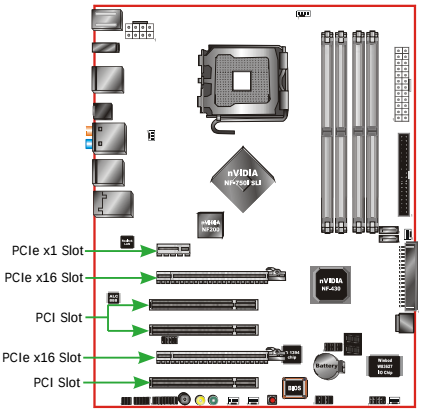
Connector	Pin	Signal
	1	SENSE
	2	+12V
	3	+12V

Expansion Slots

The EVGA nForce 750i SLI motherboard contains six expansion slots, three PCI Express slots and three PCI slots. For a full list of PCI Express x16 graphics card supported by this motherboard, go to www.nvidia.com/estore.

PCI Slots

The three PCI slots support many expansion cards such as a LAN card, USB card, SCSI card and other cards that comply with PCI specifications. When installing a card into the PCI slot, be sure that it is fully seated. Secure the card's metal bracket to the chassis back panel with the screw used to hold the blank cover.



PCI Express x1 Slot

There is one PCI Express x1 slot that is designed to accommodate less bandwidth-intensive cards, such as a modem or LAN card. The x1 slot provides 250 MB/sec bandwidth.

PCI Express x16 Slots

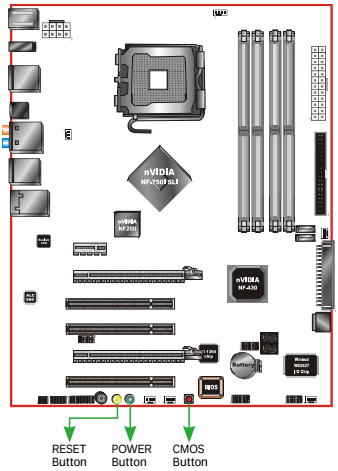
These two PCI Express x16 slots are reserved for graphics or video cards. The design of this motherboard supports two PCI-Express graphics cards with x8 bandwith using NVIDIA's SLI technology.

When installing a PCI Express x16 card, be sure the retention clip snaps and locks the card into place. If the card is not seated properly, it could cause a short across the pins. Secure the card's metal bracket to the chassis back panel with the screw used to hold the blank cover.

- For Single Mode, insert the VGA card into the "PCIE X16_1" VGA slot. (labeled on the board). The "PCIE X16_2" VGA slot will become inactive.
- For SLI Mode, an SLI kit must be installed to the golden fingers on the top of both VGA cards in order to link the cards together. (The kit is purchased separately from the motherboard).

Onboard Buttons

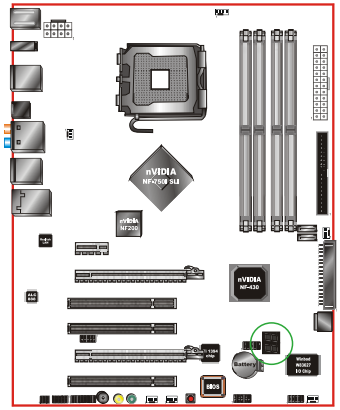
These onboard buttons include RESET, POWER and CMOS , lets you turn on/off the system easily, and convenient for clear CMOS



RESET and POWER Button:
These onboard buttons lets you turn on/off the system easily, it is especially handy for debugging or testing the system.

CMOS Button:
The motherboard uses the CMOS RAM to store all the set parameters. The CMOS can be cleared by press the CMOS button.

Post Port Debug LED



Provides two-digit POST code to show why the system fail to boot. Allows quick and easy optimization.

Configuring the BIOS

This section discusses how to change the system settings through the BIOS Setup menus. Detailed descriptions of the BIOS parameters are also provided.

This section includes the following information:

- **Enter BIOS Setup**
- **Main Menu**
- **Standard CMOS Features**
- **Advanced BIOS Features**
- **Advanced Chipset Features**
- **Integrated Peripherals**
- **Power Management Setup**
- **PnP/PCI Configurations**
- **PC Health Status**
- **Frequency/Voltage Control**

Enter BIOS Setup

The BIOS is the communication bridge between hardware and software. Correctly setting the BIOS parameters is critical to maintain optimal system performance.

Use the following procedure to verify/change BIOS settings.

1. Power on the computer.
2. Press the **Del** key when the following message briefly displays at the bottom of the screen during the Power On Self Test (POST).

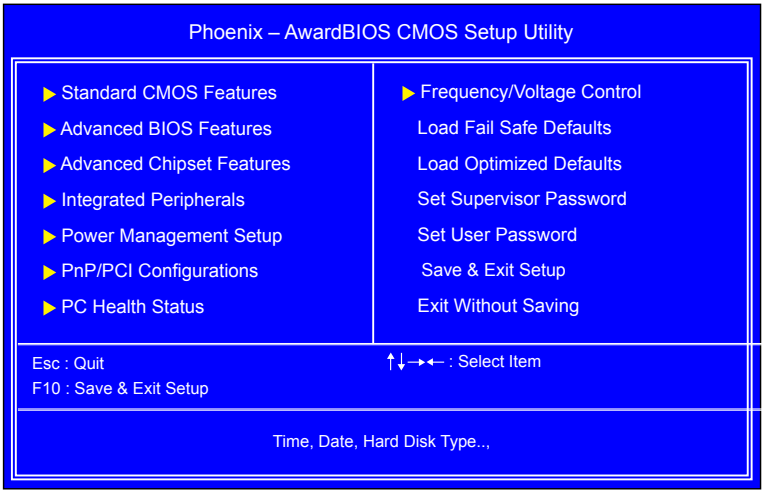
   Press F1 to continue, DEL to enter Setup.

   Pressing **Del** takes you to the Phoenix-Award BIOS CMOS Setup Utility.

Note: It is strongly recommended that you do not change the default BIOS settings. Changing some settings could damage your computer.

Main Menu

The main menu allows you to select from the list of setup functions and two exit choices. Use the **Page Up** and **Page Down** keys to scroll through the options or press **Enter** to display the associated submenu. Use the ↑↓ arrow keys to position the selector in the option you choose. To go back to the previous menu, press **Esc**.



- **Standard CMOS Features**
  Use this menu to set up the basic system configuration.
- **Advanced BIOS Features**
  Use this menu to set up the advanced system features and boot sequence.
- **Advanced Chipset Features**
  Use this menu to optimize system performance and configure clocks, voltages, memory timings, and more.
- **Integrated Peripherals**
  Use this menu to set up onboard peripherals such as IDE, RAID, USB, LAN, and MAC control.
- **Power Management Setup**
  Use this menu to configure power management, power on, and sleep features.
- **PnP/PCI Configurations**
  Use this menu to modify the system's Plug-and-Play and PCI configurations.
- **Frequency/Voltage Control**
  Use this menu to adjust various parameters to obtain improved performance for overclocking.

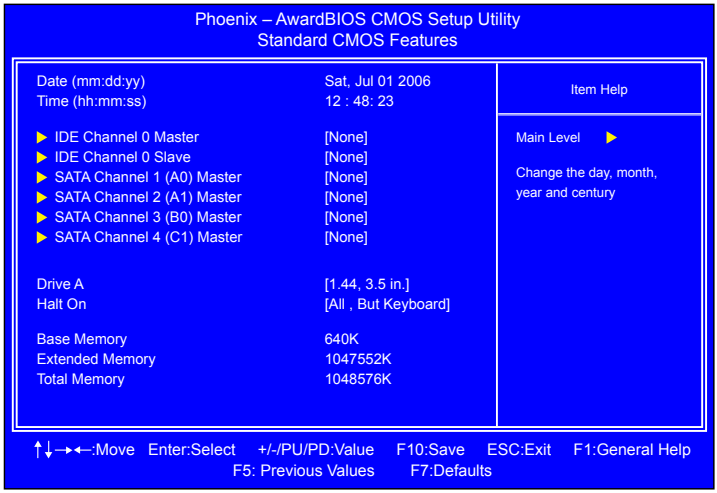
The following items on the CMOS Setup Utility main menu are commands rather than submenus:

- **Load Fail Safe Defaults**
  Load default system settings.
- **Load Optimized Defaults**
  Load default system settings.
- **Set Supervisor Password/Set User Password**
  Use this command to set, change, and disable the password used to access the BIOS menu.
- **Save & Exit Setup**
  Use this command to save settings to CMOS and exit setup.
- **Exit Without Saving**
  Use this command to abandon all setting changes and exit setup.

Standard CMOS Features

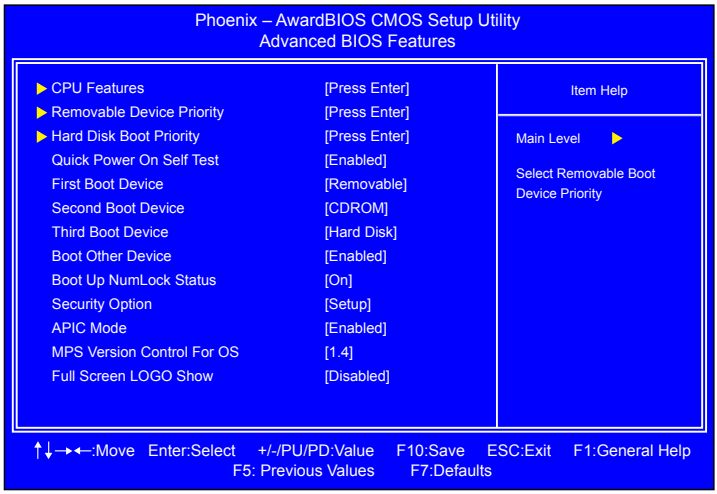
The Standard CMOS Features menu is used to configure the standard CMOS information, such as the date, time, HDD model, and so on. Use the Page Up and Page Down keys to scroll through the options or press Enter to display the sub-menu. Use the ↑↓ arrow keys to position the selector in the option you choose. To go back to the previous menu, press Esc.

The information shown in Item Help corresponds to the option highlighted.


Phoenix – AwardBIOS CMOS Setup Utility
Standard CMOS Features
Date (mm:dd:yy) Sat, Jul 01 2006
Time (hh:mm:ss) 12 : 48: 23
IDE Channel 0 Master [None]
IDE Channel 0 Slave [None]
SATA Channel 1 (A0) Master [None]
SATA Channel 2 (A1) Master [None]
SATA Channel 3 (B0) Master [None]
SATA Channel 4 (C1) Master [None]
Drive A [1.44, 3.5 in.]
Halt On [All , But Keyboard]
Base Memory 640K
Extended Memory 1047552K
Total Memory 1048576K
Item Help
Main Level
Change the day, month, year and century
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7:Defaults

Advanced BIOS Features

Access the Advanced BIOS Features menu from the CMOS Utility Setup screen. Use the Page Up and Page Down keys to scroll through the options or press Enter to display the sub-menu. Use the ↑↓ arrow keys to position the selector in the option you choose. To go back to the previous menu, press Esc.


Phoenix – AwardBIOS CMOS Setup Utility
Advanced BIOS Features
CPU Features [Press Enter]
Removable Device Priority [Press Enter]
Hard Disk Boot Priority [Press Enter]
Quick Power On Self Test [Enabled]
First Boot Device [Removable]
Second Boot Device [CDROM]
Third Boot Device [Hard Disk]
Boot Other Device [Enabled]
Boot Up NumLock Status [On]
Security Option [Setup]
APIC Mode [Enabled]
MPS Version Control For OS [1.4]
Full Screen LOGO Show [Disabled]
Item Help
Main Level
Select Removable Boot Device Priority
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7:Defaults

CPU Features

This field is available only for Pentium® CPU Features.

- Intel SpeedStep

  This function allows you to enable or disable Intel SpeedStep feature.

- Limit CPUID Maxval

  Use this function to enable the set limit of the CPUID MaxVal to 3. Set to Disable for Win XP.

- C1E Function

  Enabled, this function reduces the CPU power consumption when the CPU is idle. Idle occurs when the operating system issues a halt instruction.

- Execute Disable Bit

  When this function is disabled, it forces the XD feature flag to always return to zero (0).

- Virtualization Technology

  When this function is enabled, it allows a VMM to utilize the additional hardware capabilities provided by Intel Virtualization Technology.

Removable Device Priority

Use this option to select the priority for removable device startup. Press Enter to see the list of removable devices in your system. Use the ↑↓ arrow keys to go to the various devices. Then use

the + or – keys to move the device priority up or down in the list. To go back to the previous menu, press Esc.

The Options are: Floppy Disk, LS120, ZIP100, USB-FDD0, USB-FDD1, USB-ZIP0, USB-ZIP1.

Hard Disk Boot Priority

Use this option to select the priority for HDD startup. Press Enter to see the list of bootable devices in your system. Use the ↑↓ arrow keys to go to the various devices. Then use the + or – keys to move the device priority up or down in the list. To go back to the previous menu, press Esc.

The options are Pri. Master, Pri. Slave, Sec. Master, Sec. Slave, USBHDD0, USBHDD1, USBHDD2, Bootable Add-in cards

Quick Power On Self Test

Enabling this option allows the system to skip certain test while booting, which reduces the time needed to boot the system. Use the Page Up and Page Down keys to toggle between Enable and Disable.

First/Second/Third Boot Device

Use this option to set the priority sequence of the devices booted at power on. Use the Page Up and Page Down keys to scroll through the options or press Enter to display the sub-menu. Use the ↑↓ arrow keys to position the selector in the option you choose.

The options are Floppy, LS120, Hard Disk, CDROM, ZIP100, USB-FDD, USB-ZIP, USB-CDROM, Legacy LAN, Disabled.

Boot Other Device

With the option set to Enable, the system boots from some other device if the first/second/third boot devices fail.

Boot Up NumLock Status

This option allows you to select the power-on state of NumLock. Select On to activate the keyboard NumLock when the system is started. Select Off to disable the NumLock key.

Security Option

The Security Options allows you to require a password every time the system boots or only when you enter setup. Select Setup to require a password to gain access to the CMOS Setup screen. Select System to require a password to access the CMOS Setup screen and when the system boots.

APIC Mode

Use this function to enable or disable the Advanced Programmable Interrupt Controller (APIC). If you disable this option, you also disable the MPS Version Control for OS option.

MPS Version Control For OS

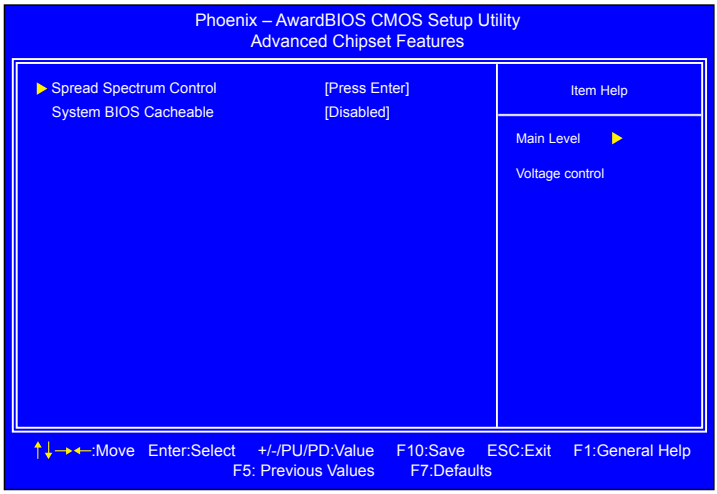
Use this function to select the Multi-Processor Specification (MPS) version that BIOS passes to the operating system. Use the Page Up and Page Down keys to scroll through the options.

Full Screen LOGO Show

This option allows you to enable or disable the display of the full-screen logo when the system boots. Use the Page Up and Page Down keys to toggle between Enable and Disable

Advanced Chipset Features

Select Advanced Chipset Features from the CMOS Setup Utility menu and press Enter to display the functions of the Advanced Chipset Functions menu.



Spread Spectrum Control

- CPU Spread Spectrum

  This option reduces the EMI generated by the CPU. The options are Disabled, Center Spread.

- SATA Spread Spectrum

  This option reduces the EMI generated by the S-ATA. The options are Disabled, Enabled.

- LDT Spread Spectrum

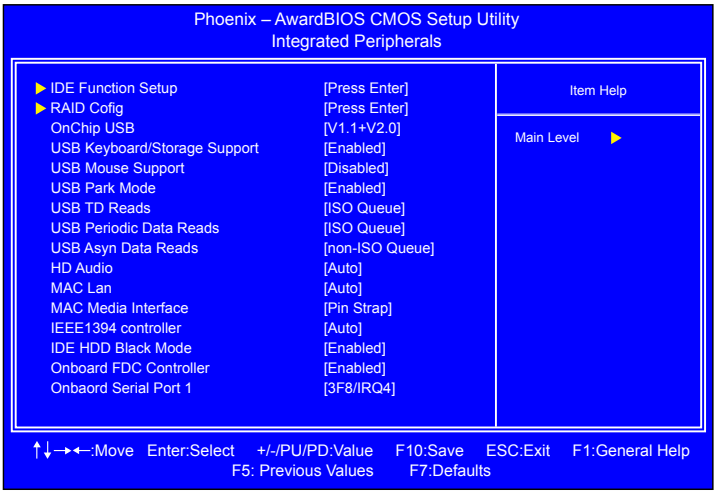
  This option reduces the EMI generated by the LDT. The options are Disabled, Down Spread

System BIOS Cacheable

This item allows the system to be cached in memory for faster execution. The options are Disabled, Enabled.

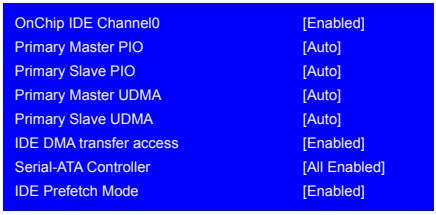
Integrated Peripherals Menu

Select Integrated Peripherals from the CMOS Setup Utility menu and press Enter to display the Integrated Peripherals menu.


Phoenix – AwardBIOS CMOS Setup Utility
Integrated Peripherals
IDE Function Setup [Press Enter]
RAID Cofig [Press Enter]
OnChip USB [V1.1+V2.0]
USB Keyboard/Storage Support [Enabled]
USB Mouse Support [Disabled]
USB Park Mode [Enabled]
USB TD Reads [ISO Queue]
USB Periodic Data Reads [ISO Queue]
USB Asyn Data Reads [non-ISO Queue]
HD Audio [Auto]
MAC Lan [Auto]
MAC Media Interface [Pin Strap]
IEEE1394 controller [Auto]
IDE HDD Black Mode [Enabled]
Onboard FDC Controller [Enabled]
Onbaord Serial Port 1 [3F8/IRQ4]
Item Help
Main Level
:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7:Defaults

IDE Function Setup

Press Enter to display the IDE Function Setup menu.


OnChip IDE Channel0 [Enabled]
Primary Master PIO [Auto]
Primary Slave PIO [Auto]
Primary Master UDMA [Auto]
Primary Slave UDMA [Auto]
IDE DMA transfer access [Enabled]
Serial-ATA Controller [All Enabled]
IDE Prefetch Mode [Enabled]

OnChip IDE Channel0

Use this function to enable or disable the onchip IDE Channel0. When disabled, the Primary Master/Slave functions are changed to Auto and cannot be changed.

Primary Master/Slave PIO

When OnChip IDE Channel0 is set to [Enabled], you can select a mode for the primary Master and Slave PIO. Select from Auto, or Mode 1 through Mode 4.

Primary Master/Slave UDMA

When OnChip IDE Channel0 is set to [Enabled], you can disable the primary Master and Slave UDMA or set it to [Auto].

IDE DMA transfer access

Use this function to enable or disable IDE DMA transfer access.

Serial-ATA Controller

This function allows you to enable specific SATA controllers, enable all controllers, or disable all controllers. The options available are [SATA-0], [SATA-0+1], [Enable All], and [Disabled].

IDE Prefetch Mode

Use this function to enable or disable the IDE Prefetch mode.

RAID Config

Press Enter to display the RAID Config menu.

RAID Enable		[Enabled]
SATA 0 Primary	RAID	[Disabled]
SATA 0 Secondary	RAID	[Disabled]
SATA 1 Primary	RAID	[Disabled]
SATA 1 Secondary	RAID	[Disabled]

RAID Enable

Use this function to enable or disable RAID. When RAID is set to [Disabled], all SATA functions are changed to Disabled and cannot be changed.

SATA x Primary/Secondary

When RAID Enable is set to [Enabled], you can enable or disable the various SATA functions.

OnChip USB

Use this function to enable specific versions of the USB or disable the onchip USB. When the onchip USB is set to [Disabled], the keyboard and mouse support functions are set to Enabled and cannot be changed. Versions that can be selected are

[V1.1+V2.0] or [V1.1].

USB Keyboard/Mouse Support

Use these function to enable or disable the onchip WSB support of the keyboard and/or mouse.

USB Park Mode

The options are Enabled, Disabled.

USB TD Reads

The options are non-ISO Queue, ISO Queue.

USB Periodic Data Reads

The options are non-ISO Queue, ISO Queue.

USB Asyn Data Reads

The options are non-ISO Queue, ISO Queue.

HD Audio

This function on the Integrated Peripherals menu allows you to enable or disable the integrated high definition audio.

MAC LAN

Use these functions to set the MAC LAN to Auto or disable their functions.

IEEE1394 controller

This function on the Integrated Peripherals menu allows you to enable or disable the IEEE1394 (Firewire) interface.

IDE HDD Block Mode

Using this function on the Integrated Peripherals menu allows your IDE hard drive needs to support block mode. Select [Enabled] to automatically detect the optimal number of block read/ writes per sector the drive can support.

Select [Disabled] if your drive does not support block mode.

Onboard FDC Controller

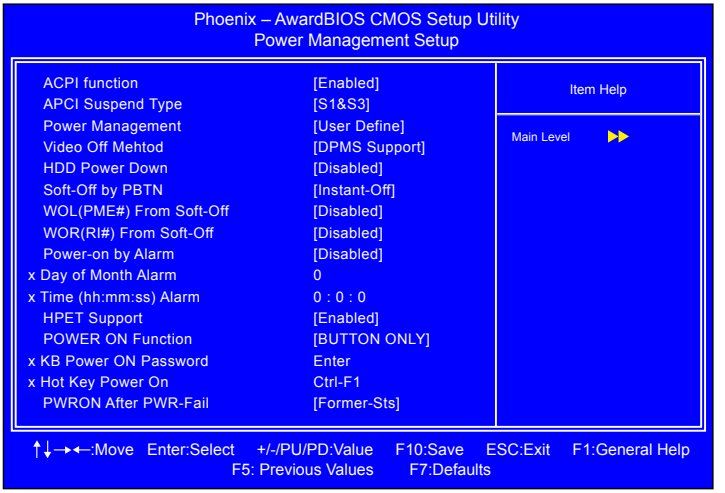
This function on the Integrated Peripherals menu allows you to enable or disable the onboard Floppy Disk Controller function.

Onboard Serial Port 1

This function on the Integrated Peripherals menu allows you to select the onboard serial port 1 function. Options are [3F8/IRQ4], [2E8/IRQ3], [3E8/IRQ4], [Auto], and [Disabled].

Power Management Setup

Select Power Management Setup from the CMOS Setup Utility menu and press Enter to display the Power Management Setup menu.


Phoenix – AwardBIOS CMOS Setup Utility
Power Management Setup
ACPI function [Enabled]
APCI Suspend Type [S1&S3]
Power Management [User Define]
Video Off Mehtod [DPMS Support]
HDD Power Down [Disabled]
Soft-Off by PBTN [Instant-Off]
WOL(PME#) From Soft-Off [Disabled]
WOR(RI#) From Soft-Off [Disabled]
Power-on by Alarm [Disabled]
x Day of Month Alarm 0
x Time (hh:mm:ss) Alarm 0 : 0 : 0
HPET Support [Enabled]
POWER ON Function [BUTTON ONLY]
x KB Power ON Password Enter
x Hot Key Power On Ctrl-F1
PWRON After PWR-Fail [Former-Sts]
Item Help
Main Level
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7:Defaults

ACPI Function

This function on the Power Management Setup menu allows you to enable or disable the ACPI function.

ACPI Suspend Type

This function on the Power Management Setup menu allows you to select an ACPI Suspend Type. Types to select from are [S1&S3], [S1(POS)], and [S3(STR)].

Power Management

Use this to select your Power Management selection. The default is User define.

- Max. saving: Maximum power savings. Inactivity period is 1 minute in each mode.
- Min. saving: Minimum power savings. Inactivity period is 1 hour in each mode.
- User define: Allows user to define PM Timers parameters to control power saving mode.

HDD Power Down

Powers down the hard disk drive after a preset period of system inactivity.
The options are Disabled, 1min ~ 15min.

Soft-Off by PBNT

This function on the Power Management Setup menu allows you to set Soft-Off by PBNT to [Instant-Off] or [Delay 4 Sec].

WOL(PME#) From Soft-Off

This function on the Power Management Setup menu allows you to enable or disable WOL(PMW#) from soft-off.

WOR(RI#) From Soft-Off

This function on the Power Management Setup menu allows you to enable or disable WOR(RI#) from soft-off.

Power On by Alarm

This function on the Power Management Setup menu allows you to enable or disable the Power-on by alarm function. Set to [Disable] to prevent poweron by alarm. When set to [Enable], you can manually put in the day of the month and the time of the alarm.

Power-on by Alarm	[Disabled]
Day of Month Alarm	[0]
Time (hh:mm:ss) Alarm	[0 : 0 : 0]

To enter a day or time, use the Page Up and Page Down keys to scroll through numbers or enter the number using the keyboard number or the + and – keys.

HPET Support

This function allows you to enable or disable the High Precision Even Timer (HPET). When Enabled, HPET is used as the timing hardware for multimedia and other time-sensitive application. When HPET is Disabled, the APIC timer is used.

POWER ON Function

This function on the Power Management Setup menu allows you to define the power-on function. Options for this function are:

- **BUTTON ONLY**
- **Keyboard 98**
- **Password**

  When [Password] is selected, the KB Power ON Password function is enabled so that you must enter a password.

POWER ON Function	[Password]
KB Power ON Password	[Enter]
x Hot Key Power On	Ctrl-F1

- **Hot Key Power On**

  When [Hot Key] is selected, the Hot key Power On function is enabled so that you must select a keyboard key as the hot key. To select a hot key use Ctrl+F1 though Ctrl+F12

POWER ON Function	[Hot key]
x KB Power ON Password	Enter
Hot Key Power On	[Ctrl-F1]

- **Mouse Left**
- **Mouse Right**
- **Any Key**

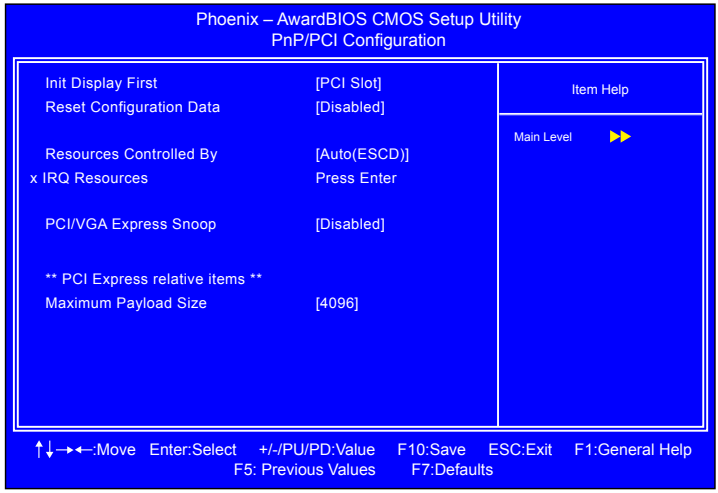
PWRON After PWR-Fail

This item enables your computer to automatically restart or return to its last operating status after power returns from a power failure.

- Off: The system stays off after a power failure.
- On: The system stays on after a power failure.

PnP/PCI Configuration Menu

Select PnP/PCI Configuration from the CMOS Setup Utility menu and press **Enter** to display the PnP/PCI Configuration menu.


Phoenix – AwardBIOS CMOS Setup Utility
PnP/PCI Configuration
Init Display First [PCI Slot]
Reset Configuration Data [Disabled]
Resources Controlled By [Auto(ESCD)]
x IRQ Resources Press Enter
PCI/VGA Express Snoop [Disabled]
** PCI Express relative items **
Maximum Payload Size [4096]
Item Help
Main Level
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7:Defaults

Init Display First

This function on the PnP/PCI Configuration menu allows you to define if the initial display is in the PCI slot or in the PCI Express slot. Options are [PCI Slot] and [PCIEx].

Reset Configuration Data

This function on the PnP/PCI Configuration menu allows you to enable or disable the resetting of Extended System Configuration Data (ESCD) when you exit Setup. Set this to [Enabled] if you have installed a new add-on and the system reconfiguration has caused a serious conflict that prevents the OS from booting. The default setting is [Disabled].

Resources Controlled By

This function on the PnP/PCI Configuration menu allows you to define if the BIOS can automatically configure all the boot and plug-and-play compatible devices or if you can manually select IRQ, DMA, and memory base address fields. Select [Auto(ESCD)] if you want the BIOS to automatically populate these fields. If you select [Manual] so you can assign the resources, IRQ Resources is enabled for input.

IRQ Resources

To enable this field for input, set Resources Controlled By to [Manual]. With this field enabled, press Enter to see options.

IRQ-5 assigned to	[PCI Device]
IRQ-9 assigned to	[Reserved]
IRQ-10 assigned to	[PCI Device]
IRQ-11 assigned to	[PCI Device]
IRQ-14 assigned to	[PCI Device]
IRQ-15 assigned to	[PCI Device]

Use Legacy ISA for devices compliant with the original PC AT Bus specification. Use PCI/ISA PnP for devices compliant with the plug-and-play standard, whether designed for PCI or ISA Bus architecture.

PCI/VGA Palette Snoop

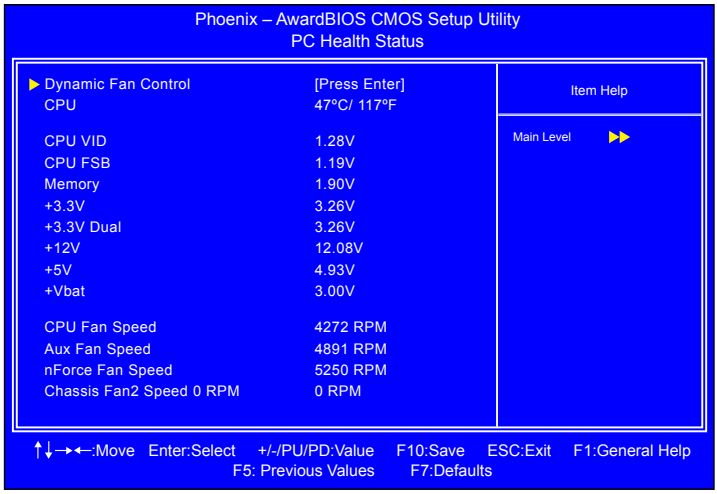
This function on the PnP/PCI Configuration menu allows you to enable or disable the Palette Snoop function.

Maximum Payload Size

This function on the PnP/PCI Configuration menu allows you to set the maximum TLP payload size (in bytes) for the PCI Express devices. Use the Page Up and Page Down keys to scroll through sizes or enter the number using the keyboard numbers or use the + and – keys to go up and down the list of sizes.

PC Health Status

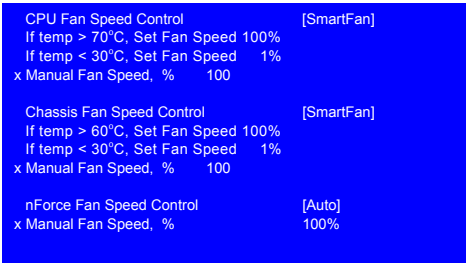
Select PC Health Status from the CMOS Setup Utility menu and press Enter to display the PC Health Status menu.



All of the values shown in Blue are dynamic and change as the speed and voltages of the various components change with system usage.

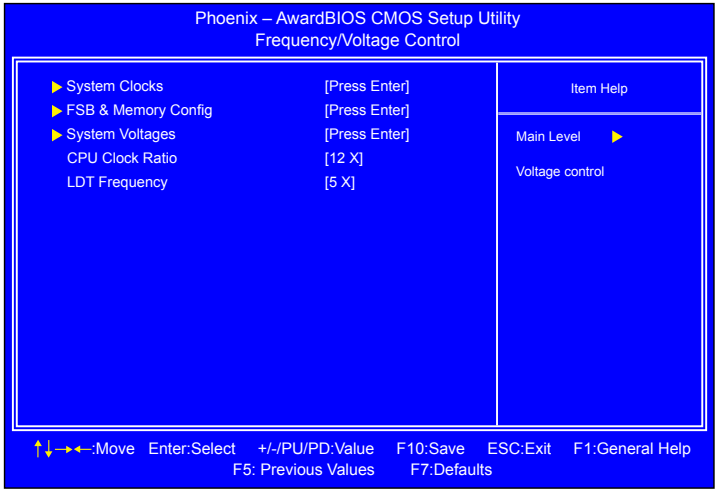
Dynamic Fan Control

How effective Smart CPU Fan is will depend on fan design. Most fans have built-in thermistor and may self adjust its speed.



Frequency/Voltage Control

Select Frequency/Voltage Control from the CMOS Setup Utility menu and press Enter to display the Frequency/Voltage Control menu.


Phoenix – AwardBIOS CMOS Setup Utility
Frequency/Voltage Control
System Clocks [Press Enter]
FSB & Memory Config [Press Enter]
System Voltages [Press Enter]
CPU Clock Ratio [12 X]
LDT Frequency [5 X]
Item Help
Main Level
Voltage control
:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7:Defaults

CPU Clock Ratio

This value changes the CPU Frequency value depending on the value you choose. Use the Page Up and Page Down keys to scroll through the options.

The options are from 6 X through 60 X.

LDT Frequency

Use this item to select LDT Frequency.

System Clocks

From this menu, display the frequency settings.

Parameters	Settings	Current Value
Frequency Settings		
Current CPU Freq, MHz	2400.0	2400.0
FSB Clock, MHz	800.0	800.0

- **Current CPU Freq, MHz**

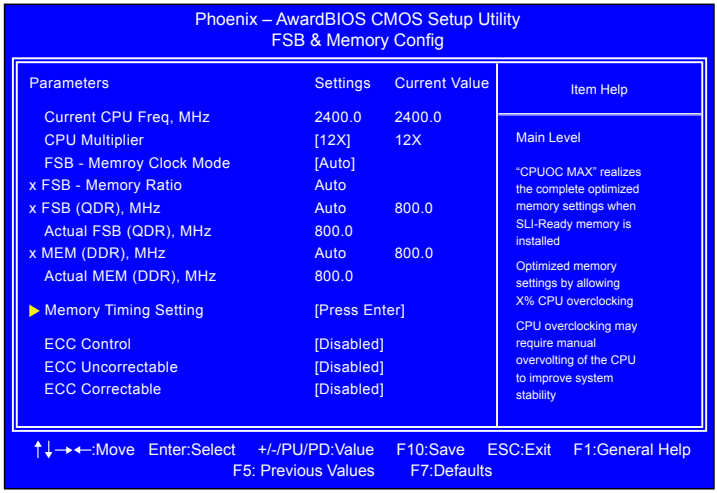
  This value is set by the CPU Multiplier (value cannot be changed by the user).

- **FSB Clock, MHz**

  This value is set by the system (value cannot be changed by the user).

FSB & Memroy Config

From this menu, you are able to specify frequency settings and memroy settings.


Phoenix – AwardBIOS CMOS Setup Utility
FSB & Memory Config
Parameters
Settings
Current Value
Item Help
Current CPU Freq, MHz 2400.0 2400.0
CPU Multiplier [12X] 12X
FSB - Memroy Clock Mode [Auto]
x FSB - Memory Ratio Auto
x FSB (QDR), MHz Auto 800.0
Actual FSB (QDR), MHz 800.0
x MEM (DDR), MHz Auto 800.0
Actual MEM (DDR), MHz 800.0
Memory Timing Setting [Press Enter]
ECC Control [Disabled]
ECC Uncorrectable [Disabled]
ECC Correctable [Disabled]
Main Level
"CPUOC MAX" realizes the complete optimized memory settings when SLI-Ready memory is installed
Optimized memory settings by allowing X% CPU overclocking
CPU overclocking may require manual overvolting of the CPU to improve system stability
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5: Previous Values F7:Defaults

FSB - Memroy Clock Mode

Use the Page Up and Page Down keys to scroll through the FSB and Memory Clock Mode options. The options are:

- Auto

  This is the optimal setting since it sets the FSB and memory speeds automatically.

- Linked

  When Link is selected, FSB (QDR), MHz is changed to editable and the FSB speed can be entered manually. As the FSB speed is changed, CPU Freq, MHz changes proportionally.

CPU Freq, MHz	2400.0	2400.0
CPU Multiplier	11X	11X
FSB – Memory Clock Mode	[Linked]	
FSB (QDR), MHz	[1067]	1066.7
Actual FSB (QDR), MHz		1066.7
x MEM (DDR), MHz	Auto	800.0
Actual MEM (DDR), MHz	800.0	

- Unlinked

  When Unlink is selected, FSB (QDR), MHz and MEM (DDR), MHz are changed to editable and the FSB and memory speeds can be entered manually. As the FSB speed is changed, CPU Freq, MHz changes proportionally.

FSB – Memory Clock Mode	[unlinked]	
FSB (QDR), MHz	[1067]	1066.7
Actual FSB (QDR), MHz	1066.7	
MEM (DDR), MHz	[1067]	800.0
Actual MEM (DDR), MHz	800.0	

FSB (QDR), MHz

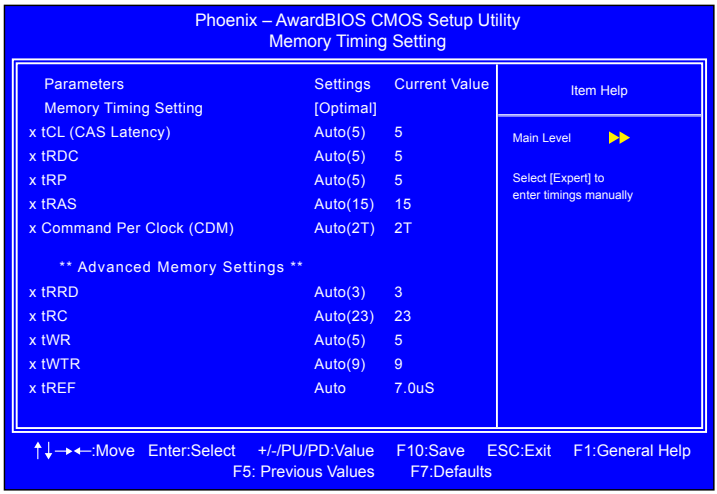
Use the + or – keys to scroll through new values for the CPU FSB frequency or type in a new value. Note that the Actual FSB (QDR) reflects the actual frequency that takes effect on a reboot.

MEM (DDR), MHz

Use the + or – keys to scroll through new values for the memory frequency or type in a new value. Note that the Actual MEM (DDR) reflects the actual frequency that takes effect when the system reboots.

Memory Timing Setting

Press Enter to display the Memory Timing Setting menu. Use this menu to set optimal timings or to manually enter timings.



➢ Optimal

Use the Page Up and Page Down keys to select Optimal. Optimal prohibits you from manually setting any timing. All timing is set for optimal performance.

➢ Expert

Use the Page Up and Page Down keys to select Expert. When Expert is selected, all timing categories are enabled for manual input. Note that you should set the value to Optimal to use the manufacturers' recommended values.

- tCL: CAS# latency (options are 1 through 6).
- tRDC: RAS#-to-CAS# Delay for Read/Write commands to the same bank (options are 1 through 7).
- tRP: Row Precharge time. This is the Precharge-to-Active or Autoto-Refresh of the same bank (options are 1 through 7).
- tRAS: This is the minimum RAS# active time (options are 1 through 31).

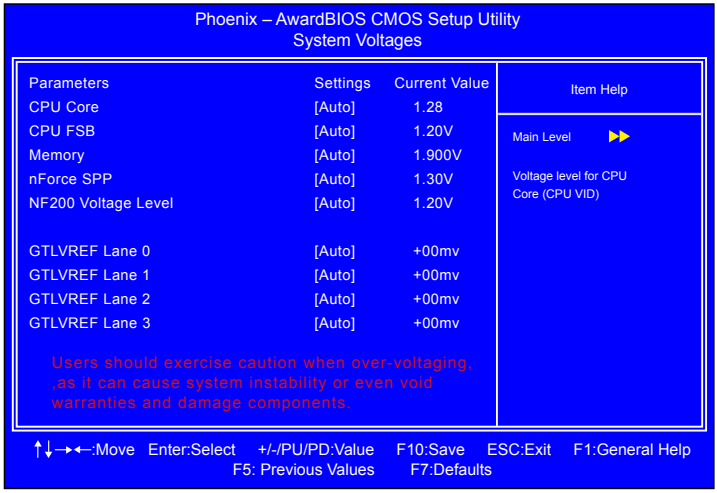
- Command Per Clock: This is the command timing setting on a per clock unit basis (options are 1T and 2T).
- tRRD: RAS#-to-RAS# delay of different banks (options are 1 through 15).
- tRC: RAS#-to-RAS# or auto refresh time of the same bank (options are 1 through 31).
- tWR: The Write recovery time (options are 2 through 7).
- tWTR: This is the minimum write-to-read delay with the same chip selected (options are 1 through 10).
- tREF: This is the DRAM refresh rate (options are Auto, 7.8uS, and 3.9uS).

ECC Control

Disabled

System Voltages

Select System Voltages from the Frequency/Voltage Control menu and press Enter to display the System Voltages menu.



CPU Core

Use the Page Up and Page Down keys to scroll through the voltages or select [Auto] to automatically set the voltage level for the CPU Core.

CPU FSB

Use the Page Up and Page Down keys to scroll through the voltages or select [Auto] to automatically set the voltage level for the CPU FSB.

Memory

This function defines the voltage level for the DRAM. Use the Page Up and Page Down keys to select a voltage or select [Auto] to automatically set the voltage.

nForce SPP

This function defines the core voltage level for the NVIDIA nForce SPP chip. Use the Page Up and Page Down keys to select a voltage (1.20V, 1.30V, 1.40V, 1.50V) or select [Auto] to automatically set the voltage.

NF200 Voltage Level

This function defines the core voltage level for the NVIDIA nForce NF200 chip. Use the Page Up and Page Down keys to select a voltage or select [Auto] to automatically set the voltage.

GTLVREF Lane 0

This function defines the voltage level for GTLVREF Lane 0. Use the Page Up and Page Down keys to select a voltage or select [Auto] to automatically set the voltage.

GTLVREF Lane 1

This function defines the voltage level for GTLVREF Lane 1. Use the Page Up and Page Down keys to select a voltage or select [Auto] to automatically set the voltage.

GTLVREF Lane 2

This function defines the voltage level for GTLVREF Lane 2. Use the Page Up and Page Down keys to select a voltage or select [Auto] to automatically set the voltage.

GTLVREF Lane 3

This function defines the voltage level for GTLVREF Lane 3. Use the Page Up and Page Down keys to select a voltage or select [Auto]to automatically set the voltage.

Installing Drivers and Software

Note: It is important to remember that *before* installing the driver CD that is shipped in the kit, you need to load your operating system. The motherboard supports Windows XP 32bit and 64bit and is Vista-capable.

The kit comes with a CD that contains drivers and additional NVIDIA software.

The CD that has been shipped with your EVGA motherboard contains the following software and drivers:

- NVIDIA nForce motherboard drivers
- Audio drivers
- RAID drivers
- Adobe Acrobat Reader
- User's Manual

Driver Installation

3. Insert the EVGA nForce 780i SLI installation CD for the motherboard included in the kit.
4. The CD will autorun, install the drivers and utilities listed on the install screen.

If the CD does not run, go to My Computer and click on the CD to open.

Appendix A.
POST Codes for Tritium Platform

This section provides the Award POST Codes (Table 6) and the NVMM POST Codes (Table 7) for Tritium platforms during system boot up.

Table 1. Award POST Code

Award POST Codes		
Code	**Name**	**Description**
01	Reserved	
02	Jumps to E000 segment	Execution of POST routines in E000
03	Early SuperIO	Init Early Initialized the super IO
04	Reserved	
05	Blank video	Reset Video controller
06	Reserved	
07	Init KBC	Keyboard controller init
08	KB test	Test the Keyboard
09	Reserved	
0A	Mouse Init	Initialized the mouse
0B	Reserved	
0C	Reserved	
0D	Reserved	
0E	CheckSum Check	Check the integrity of the ROM,BIOS and message
0F	Reserved	
10	Autodetect EEPROM	Check Flash type and copy flash write/erase routines
11	Reserved	

Award POST Codes		
Code	**Name**	**Description**
12	Test CMOS	Test and Reset CMOS
13	Reserved	
14	Load Chipset	Load Chipset Defaults
15	Reserved	
16	Init Clock	Initialize onboard clock generator
17	Reserved	
18	Init CPU	CPU ID and initialize L1/L2 cache
19	Reserved	
1A	Reserved	
1B	Setup Interrupt Vector Table	Initialize first 120 interrupt vectors with SPURIOUS_INT_HDLR and initialize INT 00h-1Fh according to INT_TBL
1C	CMOS Battery Check	Test CMOS and check Battery Fail
1D	Early PM	Early PM initialization
1E	Reserved	
1F	Re-initial KB	Load keyboard matrix
20	Reserved	
21	HPM init	Init Heuristic Power Management (HPM)
22	Reserved	
23	Program chipset	Early Programming of chipset registers
24	Init PNP	Init PNP
25	Shadow VBIOS	Shadow system/video BIOS
26	Clock Gen	Init onboard clock generator and sensor
27	Setup BDA	Setup BIOS DATA AREA (BDA)
28	Reserved	
29	CPU Speed detect	Chipset programming and CPU Speed detect
2A	Reserved	
2B	Init video	Initialize Video
2C	Reserved	
2D	Video memory test	Test Video Memory and display Logos

Award POST Codes		
Code	**Name**	**Description**
2E	Reserved	
2F	Reserved	
30	Reserved	
31	Reserved	
32	Reserved	
33	Early keyboard reset	Early Keyboard Reset
34	Reserved	
35	Test DMA Controller 0	Test DMA channel 0
36	Reserved	
37	Test DMA Controller 1	Test DMA channel 1
38	Reserved	
39	Test DMA Page Registers	Test DMA Page Registers
3A	Reserved	
3B	Reserved	
3C	Test Timer	Test 8254 Timer 0 Counter 2.
3D	Reserved	
3E	Test 8259-1 Mask	Verify 8259 Channel 1 masked interrupts by alternately turning off and on the interrupt lines.
3F	Reserved	
40	Test 8259-2 Mask	Verify 8259 Channel 2 masked interrupts by alternately turning off and on the interrupt lines.
41	Reserved	
42	Reserved	
43	Test Stuck Interrupt	Turn off interrupts then verify no 8259's interrupt mask register is on. Test 8259 Force an interrupt and verify the interrupt occurred.
44	Reserved	
45	Reinit serial port	Reinitialize Preboot agent serial port
46	Reserved	
47	EISA Test	If EISA non-volatile memory checksum is good, execute EISA initialization. If not, execute ISA tests and clear EISA mode flag.

Award POST Codes		
Code	**Name**	**Description**
48	Reserved	
49	Size Memory	Size base memory from 256K to 640K and extended memory above 1MB.
4A	Reserved	
4B	Reserved	
4C	Reserved	
4D	Reserved	
4E	Init APIC	Initialize APIC and set MTRR
4F	Reserved	
50	USB init	Initialize USB controller
51	Reserved	
52	Memory Test	Test all memory of memory above 1MB using Virtual 8086 mode, page mode and clear the memory
53	Reserved	
54	Reserved	
55	CPU display	Detect CPU speed and display CPU vendor specific version string and turn on all necessary CPU features
56	Reserved	
57	PnP Init Display	PnP logo and PnP early init
58	Reserved	
59	Setup Virus	Setup virus protect according to Protect Setup
5A	Reserved	
5B	Awdflash Load	If required, will auto load Awdflash.exe in POST
5C	Reserved	
5D	Onboard I/O	Init Initializing onboard superIO
5E	Reserved	
5F	Reserved	
60	Setup enable	Display setup message and enable setup functions
61	Reserved	
62	Reserved	
63	Initialize Mouse	Detect if mouse is present, initialize mouse, install interrupt vectors.

Award POST Codes		
Code	**Name**	**Description**
64	Reserved	
65	PS2 Mouse special	Special treatment to PS2 Mouse port
66	Reserved	
67	ACPI init	ACPI sub-system initializing
68	Reserved	
69	Init Cache	Initialize cache controller
6A	Reserved	
6B	Setup	Enter setup check and autoconfiguration check up
6C	Reserved	
6D	Initialize Floppy	Initialize floppy disk drive
6E	Reserved	
6F	FDD install	Install FDD and setup BIOS data area parameters
70	Reserved	
71	Reserved	
72	Reserved	
73	Initialize Hard Drive	Initialize hard drive controller
74	Reserved	
75	Detect HDD	IDE device detection
76	Reserved	
77	Detect serial ports	Initialize serial ports.
78	Reserved	
79	Reserved	
7A	Detect parallel ports	Initialize parallel ports.
7B	Reserved	
7C	HDD Write Protect	HDD check for write protection
7D	Reserved	
7E	Reserved	
7F	POST error check	Check POST error and display them and ask for user intervention
80	Reserved	
81	Reserved	

Award POST Codes		
Code	**Name**	**Description**
82	Security Check	Ask password security.
83	Write CMOS	Write all CMOS values back to RAM and clear screen.
84	Display PNP	Display PNP devices
85	USB Final Init	Final USB initialization
86	Reserved	
87	Reserved	
88	Reserved	
89	Setup ACPI tables	Setup ACPI tables
8A	Reserved	
8B	Option ROM Detect	Scan for Option ROMs
8C	Reserved	
8D	Enable Parity Check	Enable Parity Check
8E	Reserved	
8F	IRQ12 Enable	Enable IRQ12 if mouse present
90	Reserved	
91	Reserved	
92	Reserved	
93	Boot Medium Read	Detect and store boot partition head and cylinders values in RAM
94	Final Init	Final init for last micro details before boot
95	NumLock	Set NumLock status according to Setup
96	Boot Attempt	Set low stack Boot via INT 19h.
C0	Base CPU test	Read/Write CPU registers
C1	Memory Presence	Base memory detect
C2	Early Memory	Board Initialization
C3	Extend Memory	Turn on extended memory, cache initialization
C4	Special Display	First display initialization
C5	Early Shadow	Early shadow enable for fast boot
C6	Cache presence	External cache size detection
CF	CMOS Check	CMOS checkup

Award POST Codes		
Code	**Name**	**Description**
B0	Spurious	If interrupt occurs in protected mode.
B1	Unclaimed NMI	If unmasked NMI occurs, display Press F1 to disable NMI, F2 reboot.
BF	Program MCP	To program chipset from defaults values
E1-EF	Setup Pages	E1- Page 1, E2 - Page 2, etc.
FF	Boot	

EVGA

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